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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,346	10/14/2005	Kenji Sakamoto	1248-0825PUS1	2091

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EXAMINER

INGVOLDSTAD, BENNETT

ART UNIT	PAPER NUMBER
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2427

NOTIFICATION DATE	DELIVERY MODE
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04/29/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/553,346	Applicant(s) SAKAMOTO, KENJI	
	Examiner Bennett Ingvaldstad	Art Unit 2427	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 10-14, 17-23 and 25-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-14, 17-23 and 25-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 22 February 2010 have been fully considered but they are moot in view of the new rejections.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 February 2010 has been entered.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 22, 23 and 25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 22, 23 and 25 set forth a “computer readable medium.” However, the specification as originally filed does not explicitly define what a computer readable medium comprises. The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest

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reasonable interpretation consistent with the specification during proceedings before the USPTO. See *In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable media (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals per se in view of the ordinary and customary meaning of computer readable media, particularly when the specification is absent an explicit definition or is silent. See MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal per se, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. See *In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101, Aug. 24, 2009; p. 2.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1–7, 10–14, 17–23, and 25–29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwamura (US 5,883,621) in view of Haines (US 2003/0080992 A1), Murphy (US 6987847 B1), and Sano (US 2002/0018057 A1).

Claim 1: Iwamura discloses a display device (integrated receiver decoder 100 in conjunction with TV set 102, fig. 1), comprising:

reception means for receiving data transmitted from a plurality of transmission devices (IRD 100 receives data from DVD 106, VCRs 108, 112, minidisk recorder 110, fig. 1);

display means for displaying information (TV set 102, fig. 1); and

control means for controlling a function of the display device (IRD 100 outputs received signals to the display, figs. 2a–b), wherein the control means includes:

reception state detection means for detecting a state of reception of the reception means (network reception connections are discovered upon startup and when a new node joins the network, fig. 3; col. 4, l. 55 – col. 5, l. 50).

Iwamura does not disclose that the data transmission is a wireless transmission using a degree detection means for detecting the degree of the reception.

Haines teaches a wireless data network for transmitting data between devices (fig. 7 and description) and a network device comprising means for detecting a degree of reception (see signal strength, para. 0021) of the devices on the network in order to determine the devices' location (para. 0021).

It is obvious to make a simple substitution to yield predictable results. Therefore it would have been obvious to have replaced the wired transmission method disclosed by Iwamura with the wireless transmission method disclosed by Haines because both transmission methods yield the predictable result of allowing the transmission of data between networked devices. Haines has the further benefit of allowing detection of the

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location of a device in the network (para. 0021), thus allowing Iwamura's network map (see Iwamura fig. 6) to be enhanced to indicate the physical locations of the devices (see Haines paras. 0043–0044, and fig. 7).

Iwamura in view of Haines still does not teach displaying device images respectively indicating at least one room.

Murphy teaches that communication devices may be labeled in order to indicate at least one room (col. 6, ll. 53–67: e.g., “computer-in-bedroom”).

It would have been obvious to replace the short names used by Iwamura (see Fig. 5) with more descriptive names indicating the room of the device for the purpose of displaying the network map (see Iwamura Fig. 6 and Haines Fig. 7) while more readily indicating the location and identity of the device by indicating the room of the device

However, the references still do not teach that the size of each image becomes larger as the degree of reception detected regarding the transmission devices in each respective room becomes greater.

Sano teaches a signal strength icon associated with a device that becomes larger when the signal strength of the device is detected to be greater (see para. 0067 and Fig. 8, noting that the length of bar graph G corresponds to the quality of the wireless link).

It would have been obvious to implement the bar graph icon G with the device icons of Iwamura's network map (see Fig. 6) in order to indicate more information about the devices and their wireless links. Thus, adding the bar graph G to the device icons

would have the claimed effect of making the images become larger as the degree of reception becomes greater.

Claim 2, dependent on claim 1: Iwamura in view of Haines further discloses wherein the reception state detection means detects the state of reception, based on at least one of electric field strength of a received radio wave and an error ratio of received data (see received signal strength, Haines para. 0021).

Claim 3: Iwamura in view of Haines teaches a display device as discussed for claim 1, the reception means further comprising a communication means because the devices communicate bi-directionally (Iwamura fig. 12; Haines para. 0001)

Claim 4 corresponds to claim 2 and is met as such.

Claim 5, dependent on claim 3: Iwamura in view of Haines further teaches that the display control means determines a distance from the display device, based on the degree of communication detected by the communication degree detection means (Haines para. 0021), and controls the display means so that the display means displays the room based on the determined distance (using the distance to determine the location, Haines para. 0021, in order to display the devices positioned accurately in rooms on the map, Haines fig. 7).

Claim 6, dependent on claim 5: Iwamura in view of Haines further teaches wherein the display control means controls the display means so that the display means displays according to perspective (see Haines fig. 7: a top-down perspective).

Claim 7, dependent on claim 3: Iwamura in view of Haines further discloses wherein the communication degree detection means detects a degree of

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communication with communication device(s) with which a communication link is established, out of the plurality of communication devices (Haines para. 0021).

Claim 10: Iwamura in view of Haines, Murphy, and Sano teaches a wireless communication system comprising communication devices and display device as already discussed above for claim 1 and further wherein the one or more communication devices include:

communication means for performing wireless communication of data with the display device (see Iwamura fig. 6 in view of Haines' teaching of a wireless network); and

control means for controlling a function of the one or more communication devices (e.g. controlling playback from a device, Iwamura fig. 11);

the control means of the one or more communication devices includes:

communication degree detection means for detecting a degree of communication of the communication means (see Haines para. 0026, 0033: estimating location by gathering signal strength measurements from the network devices), and

communication state transmission means for transmitting, via the communication means, to the display device, the state of communication detected by the communication state detection means (Haines para. 0026, 0033).

Claims 11-14 and correspond to claims 4-7 respectively and are met as such.

Claim 17, dependent on claim 10: Iwamura in view of Haines further teaches that there are a plurality of the communication devices (Iwamura fig. 1: DVD 106, VCRs 108, 112, minidisk recorder 110);

the communication means of each of the communication devices performs wireless communication of data with other communication device(s) as well as with the display device (Iwamura fig. 12 in view of Haines' wireless network),

the communication degree detection means of each of the communication devices detects a degree of communication with other communication device(s) as well as with the display device (Haines para. 0026, 0033),

the display control means of the display device controls the display means so that the display means displays the images respectively indicating the room based on the degree of communication of the communication devices acquired by the communication degree acquisition means (using the measured distance to determine the location, Haines para. 0021, in order to display the devices positioned accurately in rooms on the map, Haines fig. 7);

Claim 18, dependent on claim 10: Iwamura in view of Haines further discloses that there are a plurality of the communication devices (Iwamura fig. 1: DVD 106, VCRs 108, 112, minidisk recorder 110),

the communication means of each of the communication devices performs wireless communication of data with other communication device(s) as well as with the display device (Iwamura fig. 12 in view of Haines' wireless network),

the communication degree detection means of each of the communication devices detects a degree of communication with other communication device(s) (see gathering distance information from other network devices, Haines para. 0026),

the display device further includes communication degree detection means for detecting a degree of communication with each of the communication devices (Haines para. 0026), and

the display control means controls the display means so that the display means displays the images for indicating the room, based on (i) the degree of communication of each of the communication devices acquired by the communication degree acquisition means and (ii) the degree of communication with each of the communication devices detected by the communication degree detection means (using the location information gathered from the plurality of network devices, Haines para. 0026, in order to display the devices positioned accurately in rooms on the map, Haines fig. 7)

Claims 19 and 20. Iwamura in view of Haines, Murphy, and Sano further teaches a control method for the display devices as discussed in claims 1 and 3 respectively.

Claim 21: Iwamura in view of Haines, Murphy, and Sano teaches a control method for the wireless communication system discussed in claim 10.

Claim 22, dependent on claim 1: Iwamura in view of Haines further discloses a computer readable medium encoded with a display device control program for causing the display device as set forth in claim 1 to function and for causing a computer to function as the control means (program running on display processor).

Claim 23, dependent on claim 1: Iwamura in view of Haines further discloses a computer readable medium encoded with a wireless communication system control program for causing a wireless communication system as set forth in claim 10 to function, and for causing a computer to function as control means for both of the

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communication device and the display device (program running on wireless network interface, Haines para. 0021, connected to IRD 100, Iwamura fig. 1).

Claim 25, dependent on claim 3: Iwamura in view of Haines further discloses a computer readable medium encoded with a display device control program for causing the display device as set forth in claim 3 to function and for causing a computer to function as the control means (program running on display processor).

Claim 26, dependent on claim 1: Iwamura in view of Haines, Murphy, and Sano teaches displaying images indicating the room, in which the size of each image is according to average of the degree of reception for the transmission devices in each respective room (Sano Fig. 6B, the size of signal strength bar graph G is according to degree of reception; Haines para. 0033, the signal strength is evaluated as an average of the strength of links with other devices in other rooms).

Claim 27, dependent on claim 1: Iwamura in view of Haines teaches that the degree of reception corresponds to distance of the transmission device to the reception means (Haines para. 0021).

Claims 28 and 29 correspond to claim 25 and are met as such.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bennett Ingvaldstad whose telephone number is (571) 270-3431. The examiner can normally be reached on M–F 9–5 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bennett Ingvaldstad/
Examiner, Art Unit 2427

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2427